

AN ACCOUNT OF AN ARCHAEOLOGICAL RECONNAISSANCE
OF HUNTER'S ISLES, NORTH-WEST TASMANIA, 1973/4

by

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THE PROBLEM

... what was then ascertained to be THREE-HUMMOCK ISLAND. The channel which separates it from the land to the west, is, at least, two miles in width, and is deep; so it was difficult to conjecture how the Indians were able to get over to the island. It was almost certain that they had no canoes at Port Dalrymple, nor any means of reaching islands lying not more than two cables length from the shore; and it therefore seemed improbable that they should possess canoes here. The small size of Three-hummock Island rendered the idea of fixed inhabitants inadmissible; and whichever way it was considered, the presence of men there was a problem difficult to be resolved.
Flinders, 1814 p. clxx

Part of Flinders' problem was resolved well before the above retrospective account was published: he was (for once) wrong about the canoes. That the Aborigines of at least some parts of Tasmania had watercraft was established by Labillardière, who accompanied d'Entrecasteaux in 1792 (Labillardière 1800 vol. I p. 230, vol. II plate XLVL).

Other questions remain however: is the idea of fixed inhabitants indeed inadmissible? If so, at what times of the year did Aborigines visit the Hunter Islands? What induced people to make these perilous crossings? For how long had such visits been going on? In this paper I present a preliminary account of an archaeological project which will attempt to answer these questions.

Matthew Flinders and George Bass in the sloop "Norfolk" were the European discoverers of the cluster of islands in western Bass Strait to which Flinders '...in honour of His Excellency, the governor of New South Wales...gave to the whole the title of HUNTER'S ISLES.' (Flinders 1814 p.clxiii). The year was 1798; Tasmania was now proven to be an island separated from Australia by Bass Strait. Although Flinders and Bass saw no people on these islands, they noticed deserted fire-places strewn about with abalone shells on the north-east shore of Three Hummock Island, giving rise to Flinders' dilemma quoted above.

Subsequent visitors to Hunter's Isles included Baudin in 1801 (Baudin 1974 pp. 454 ff.); Murray in the 'Lady Nelson' who saw footprints on Three Hummock Island in the summer of 1802 (Lee 1915 p. 125); possibly Oxley in 1810 (HRA III (I) p. 774). In 1813 Captain James Kelly made his first visit to these islands on a sealing voyage with the 'Brothers' (Bowden 1964 pp. 17, 101, 102-3). Three years later he returned in the course of his circumnavigation of Tasmania in a whale boat. On the 3rd January 1816, Kelly was the first European actually to observe Aborigines in Hunter's Isles - or, at any rate, the first who has left us an account. Pulling up on the south end of Hunter Island itself, he encountered a 'large body of natives, at least 50 in number'. The encounter could not be said to have been a success, as Kelly and his men had to make a hasty retreat from a shower of stones (Kelly in Bowden 1964 pp. 30-32). Between 1826 and 1829 surveyors for the Van Diemens' Land Company, Adey, Curr and Hellyer, visited various of the islands (Meston 1958 p. 29).

The most detailed accounts however are those of George Augustus Robinson, who paid a short visit to Hunter Island in 1830 and made an extended stay there in 1832. He suggested that the Tasmanian Aborigines were regular visitors to the Hunter Islands; indeed, that one named local group had its headquarters on Robbins Island (Robinson 19.6.1830 pp. 178-9(1); Plomley 1966 pp. 971-4). Robbins is the most accessible of the group, as it is possible to cross to it on foot at low tide. Robinson also tells us that the Aborigines used to cross to Trefoil Island from Cape Grim on the Tasmanian mainland; from Trefoil to Bird Island; and from Bird to Hunter Island in their 'catamarans' (Robinson 15.8.1832, p. 641). They knew Three Hummock Island well (Robinson 14.10.1832 pp. 668-9); and the main inducement to visit these islands was the muttonbird (Robinson 21.6.1830, p. 181; 18.7.1832, p. 633; 15.8.1832, p. 641; 14.10.1832, pp. 668-9). The muttonbird, *Puffinus tenuirostris*, is a shearwater of strictly seasonal habits. It breeds in densely inhabited rookeries on the offshore islands of Tasmania and spends the southern winter in the northern hemisphere. It is present in the islands of Bass Strait only between late September and early May (Serventy, Serventy & Warham 1971 pp. 128-34).

FIELD WORK PLANNING

My interest in the prehistory of the Hunter Islands stemmed from a general interest in hunter-gatherer communities in coastal situation. As an undergraduate, I had worked on archaeological sites in the Sydney-South coast area of New South Wales, concentrating on the economic and ecological relationships between Aborigines and coastal resources (Bowdler 1970, 1971). This work led me to consider the possibility of examining a hunter-gatherer economy in the extreme coastal environment offered by small offshore islands. In such a situation, the parameters of territory and land resources would be more tightly controlled than in the more complex continental situation; and it might be possible to analyse more closely man's strategies of exploitation and adaption.

When I arrived in Canberra in 1973 to begin work towards a PhD thesis, I was interested in carrying out a combined ethnographic and archaeological project in one of the islands or island groups in the tropical environment of the Arnhem Land coast of the Northern Territory. I was persuaded of the hazards of such a project, as the area is archaeologically unknown and there are difficult logistic and other problems. Rhys Jones suggested I turn my attention to the islands of Bass Strait, which had a greater potential for investigating the kind of problems in which I was interested.

(1) All references to Robinson's journals are to Plomley's edition (Plomley 1966).

From the point of view of the archaeologist, there are two major theoretical and geographical areas of interest in the Bass Strait Islands.

1. The Pleistocene antiquity of man in Australia has now been established and, notwithstanding the lack of actual Pleistocene dates, the colonization of Tasmania prior to 12,000 years ago is demonstrable (Jones 1973). During this period, Tasmania was part of the Australian mainland due to a lower sea level. While it is uncertain whether King Island was joined to Otway Peninsula, there would have been a land bridge between Wilson's Promontory and north-east Tasmania, incorporating the Hogan, Kent and Furneaux groups of islands. It seems likely that Flinders Island and Victoria were separated by the rising sea some 12,000 years ago, and the southern Furneaux separated from Tasmania about 10,000 years ago (Jennings 1959, 1971). The eastern Bass Strait should therefore be a significant nexus in the prehistory of man in Australia and Tasmania. The Furneaux, Kents and Hogans (and King Island) were however uninhabited at the time of European discovery (Flinders 1801 p. 46). There have been reports of surface finds of stone artefacts from Flinders Island, but there are no detailed descriptions, and they are as yet stratigraphically unconfirmed (MacKay 1946; Tindale 1940; D. A. Casey & S. Murray-Smith, personal communications).

Flinders Island presents a fascinating problem in island human geography: was it too small to support a viable isolated population, or did people gradually retreat elsewhere in the face of the rising sea? The situation is directly analogous to the prehistory of Kangaroo Island, South Australia (Tindale 1957, Lampert 1972). Despite these interesting possibilities, it seemed that a lot of time would be necessary to investigate them, which might be better spent in an area of greater known archaeological potential.

2. In western Bass Strait, the Hunter Islands were known to be visited by the Tasmanian Aborigines, as can be seen from the account above. In 1936, A. L. Meston visited Hunter Island and described archaeological sites: firstly, a large cave on the east side of the island with two fireplaces and shells scattered about the floor (the 'Cave Bay Cave'); secondly, substantial midden deposits in Cuvier Bay on the west side of the island. He also found eroded middens on Three Hummock Island (Meston 1936 pp. 155-6). The Cave Bay Cave was also brought to the attention of Rhys Jones by Mrs. Macdonald of Marawah, Mr. Walker of Devonport and Mr. Pat Maguire of Hunter Island. Mr. Duncan Macdonald of Devonport had given descriptions of archaeological sites on Hunter Island, including the cave, to Mr. Frank Ellis of the Queen Victoria Museum, Launceston, who made this information available to me. The presence of middens on the east side of Three Hummock Island was confirmed by Mr. Charles Turner of Burnie. F. L. Sutherland also briefly describes a visit to Hunter Island where he collected stone artefacts from midden sites and the Cave Bay Cave (1972 p. 46).

These islands, with a wealth of known archaeological sites and good ethnographic accounts, seemed to present an ideal situation for investigating the use of islands by hunter-gatherers. The final point which made the project desirable is that the Hunter Islands are not located in archaeologically unknown territory. The basic sequence of the last 8,000 years of Tasmanian prehistory has been elucidated by Jones in the north-west and Lourandos in the south-east (Jones 1966, 1971b; Lourandos 1970); and the Hunter group is strategically placed in relation to Jones' important Rocky Cape sites and also West Point (fig. 1). Hence, in initiating an archaeological project in the Hunter Islands, I was not constrained by the broad pioneering problems of sequence, typology and age, but could concentrate on more specific and local relationships of man, land and sea. As is inevitably the case in a project involving field survey and excavation, new problems have arisen which alter somewhat the original emphasis; but the basic one of hunter-gatherer strategies in the exploitation of offshore islands is still central to the project.

FIELDWORK

I first visited the Hunter Islands in June 1973, and made short day trips to Three Hummock, Hunter and Trefoil Islands. On the north end of Coulomb Bay, Three Hummock Island, I saw the 'native carvings' (plate 1) mentioned by

Mrs. Eleanor Alliston (1966, map on endpapers), but not previously investigated by an archaeologist. The carvings are incised on a large slab of granite, and in style and technique bear a strong resemblance to those at Mr. Cameron West (e.g. McCarthy 1970 p. 63). They may thus be included in the stylistic group represented at sites round the west and north-west Tasmanian coast from Port Davey to Devonport (Jones 1966 p. 2, Sims 1974). Close to the carvings is a small midden site, itself in proximity to a modern muttonbird rookery. I visited the Cave Bay Cave and saw a number of middens on the west side of Hunter Island, south-west of the homestead, and a small stabilised midden on the south-east side of Trefoil Island, now one of the foremost commercial mutton-birding islands (fig. 2).

I returned to Tasmania in October 1973 and established a base on Hunter Island, with the permission of the lessee Mr. Pat Maguire. I spent November and December reconnoitring for sites, and surveyed intensively about 12 miles of coastline and some of the interior of the island. I was able to locate and map 129 sites, ranging from small superficial scatters of shell up to large stabilised middens, with some rock shelters and the Cave Bay Cave. A detailed analysis of this material should provide information about some of the topographical determinants of site size, type and location and hence exploitative strategies.

From the 6th to the 15th November I was joined by Mr. R. H. Green and Mr. Terry Cashion of the Queen Victoria Museum, who conducted a faunal survey. During this period I wished to sample a site by excavation, and take advantage of Bob Green's expertise in identifying faunal remains. I selected the Stockyard Site because it was near my base camp and because it was small but appeared to be largely *in situ*. The results are described below.

After a short Christmas break in Hobart, I returned to Hunter Island with some assistants, and we excavated the Cave Bay Cave, the Muttonbird Midden and the Rookery Rock shelter. The excavations and preliminary results are described below. In March 1974 I was joined by Winifred Mumford of the Department of Prehistory, Australian National University, who mapped the excavated sites. With her assistance, we dug a small sounding into the Little Duck Bay midden and excavated another square metre of the Stockyard Site. We left Hunter Island on the 18th March, 1974.

I now wanted to examine some of the smaller islands round Hunter, to see how many bore traces of Aboriginal visits. While we know from the ethnography and the presence of sites that the Tasmanians were able to get to Trefoil, Hunter and Three Hummock Islands, it would be interesting to see if there were any limits to their seagoing ventures. With the help of Mr. Alan Anson, of Tasmanian Seafoods, Smithton, I was able to go aboard the cray-boat of Mr. Mac Humphries of Smithton on the 22nd March. Mr. Humphries and his crewman Mr. Collie Green put me ashore on Stack Island, where a presumed Aboriginal skeleton was found in the 1920's (Meston 1936 p. 156; Smith 1968 p. 172). Here there are four eroded middens, and on Sea Crow Islet there is also an eroded midden. The next morning we were fortunate to be able to go ashore on Steep Heads Island, a difficult one on which to land due to the nature of the shoreline, which consists for the most part of sheer cliffs. We landed on a relatively gentle shingle bank; this would appear to be the only place a dinghy, let alone a bark catamaran, would be able to land. I examined this stretch of coast as far as possible and found no trace whatsoever of Aboriginal occupation or visitation. It seems therefore that Steep Heads was not visited by Tasmanian Aborigines; or at least, not with sufficient regularity to leave any trace.

I returned to Canberra on the 28th March 1974.

HUNTER ISLAND: THE SETTING

Hunter Island is about 24 km long and 6 km across at its widest, with an area of about 8500 hectares. It lies about 6 km off the Tasmanian mainland, from which it is separated by an extremely dangerous strait, the danger being due to massive tidal rips (Flinders 1814 pp. clxxi-clxxii; Robinson 7.6.1830 p. 176; Jennings 1959 p. 63). Geologically, 'it consists entirely of largely unmetamorphosed Precambrian slate, siltstone, quartzose sandstone and rare dolerite dykes' (Sutherland 1973 p. 135). The topography is gentle, the highest point

being 90 m above sea level. Vegetation is predominantly low coastal heath, with extensive areas now maintained as cattle pasture. Adjacent to the shoreline on the western side are extensive areas of tussock grassed sand dunes which are generally coincidental with muttonbird rookeries. There are several patches of tea-tree swamp, probably fewer now than hitherto, due to clearing and draining for pasture. Bracken fern is abundant in several places. There is no lack of fresh water in creeks and soaks.

Hunter Island supports an extensive bird life. As well as muttonbirds, breeding seabirds include pacific and silver gulls, pied and sooty oystercatchers, dotterels and fairy penguins. There is at least one nest of a white-breasted sea eagle on the island, and the nest of a nankeen kestrel in the Cave Bay Cave. Black swans, yellow-tailed black cockatoos, rosellas, eastern swamp hens, ducks of at least three species, currawongs, ravens, plovers and many more species may be seen on the island, and around its coasts albatross, gannets, terns, cormorants and pelicans are frequent visitors.

Indigenous mammals now present are the pademelon (*Thylogale billardierii*), marsupial mouse (*Antechinus minimus*), water rat (*Hydromys chrysogaster*) and possibly the velvet-furred or eastern swamp rat (*Rattus lutreolus*). The ringtail possum (*Pseudocheirus peregrinus*) is a recent introduction (or reintroduction?), together with feral cats. There are domesticated dogs, horses, sheep and cattle. Rabbits apparently made a brief appearance in the 1930's, but were quickly removed from the stage. Tiger, copperhead and whip snakes, bluetongue lizards and other skinks make their home here. There are two or three species of frogs, and galaxiid fishes swim in the creeks (R. H. Green, personal communication).

Parrot fish abound in the offshore waters; trevally, luderick, trumpeter and blackbacked salmon are among the many other species of scale fish. Abalone (*Haliotis ruber*) and crayfish (*Jasus lalandei*) are present just offshore, but possibly less abundantly than previously due to commercial exploitation in modern times. Warreners (*Subnirrella undulata*), limpets (*Cellana*), *Austrocochlea*, other gastropods and mussels and cockles can be seen between the boundaries of the tides. The giant kelp flourishes on the western rocky coasts of the island; and here too occasional sightings of seals have been made (Pat Maguire personal communication). Hunter Island may have held no great attractions to the European eye (e.g. Oxley in HRA III (I) p. 774), but would present a rich landscape to those who lived close to, and off, the land.

EXCAVATIONS ON HUNTER ISLAND, SUMMER 1973-4

The same general excavation procedure was followed at all sites. The deposit was removed with trowels, following the stratigraphy where possible. It was placed in buckets, then sieved through a 3/16 inch mesh. All cultural material was saved except shells, and shell samples were taken from the sides of excavated trenches. Excavation proceeded in areas 1 m square. All sites were backfilled after the sections had been drawn and photographs taken.

1. The Cave Bay Cave (mv code number: HIS/HUN/1) Fig. 2, plate 2)

This is the cave on the east side of the island described by Meston (1936). It is around the cliff from Pat Maguire's jetty in the bay called Cave Bay; so I have called the cave, in a rather circular fashion, the Cave Bay Cave. It is a large sea cave in a cliff of Precambrian slate. In size it is about 25 m across at the entrance and runs back into the cliff to a depth of about 50 m. The roof at the entrance is about 12 m high, and the entrance is about 25 m above the rocky shoreline. The floor is a fine floury dust with fragments of shell and bone visible to the far end of the cave. There are three concentrated patches of shell visible on the surface (no doubt the fireplaces described by Meston, *op. cit.*). Other features are a kestrel's nest, and two mounded depressions caused by constant water drips. The walls of the cave bear numerous graffiti, nearly all names and dates. We made a record of these, as far as they were legible. The oldest reads 'Walrus 1867'. There was apparently a boat of that name which sailed from Devonport to King Island in that year (Pat Maguire, personal communication).

Trench I We first excavated a trench 4 m x 1 m across the entrance. The maximum depth of deposit excavated was about 1 m. Deposit continues below this depth but we were unable to excavate further because of massive boulders of exfoliated slate embedded in the deposit.

The top 5 to 15 cms of deposit contained evidence, albeit sparse, of human occupation. The surface of the deposit is a fine grey-brown powdery soil. Immediately beneath this was a thin complex of hearths and scorched yellow-grey material. Within this complex, about 9 stone artefacts were associated with the bones of small birds, rats and *Isoodon obesulus* (the brown bandicoot). One of the problems of working in a cave site such as this is the possibility that it has been the haunt of carnivorous birds and/or mammals who have left their own food debris behind, (cf. Dortch & Merrilees 1971 pp.111-2). A more detailed analysis is therefore necessary before I can confidently distinguish the dietary remains of Aborigines from those of non-human users of the cave. One of the stone artefacts is a small steep-edged scraper in an almost transparent rock crystal; (fig. 3) the other eight are primary flakes of local quartz or quartzite.

Below this complex was about 35-40 cms of finely divided grey-brown soil which is probably culturally sterile, containing only the bones of small birds.

Beneath this sterile layer was further evidence of human occupation. Stone artefacts, charcoal, shells and the bones of more and larger animals reappeared in a matrix of crumbly orange-brown deposit. At least 17 stone artefacts were recovered, with the remains of muttonbird, rat, brown bandicoot (*Isoodon*), ringtail possum and pademelon. The stone artefacts were either simply flakes or crudely flaked pebbles, of quartz or quartzites easily found on the foreshore immediately below the cave.

Within this orange-brown layer at the west end of the trench, about 55 cms below the surface, we found a concentration of material within an area of about half a square metre. Four extremely well-made and beautifully preserved bone points (fig. 4) were associated with two large pebbles with signs of pitting or abrasion and a pebble 'chopper' (fig. 3), and a large amount of bone. This bone does seem to be almost certainly human food refuse and a preliminary sorting indicates the following minimum numbers of animals: (1)

pademelon:	5
wallaby:	1 (+ 4 wallaby fibulae made into bone points)
muttonbird:	8
fairly penguin:	1
rat:	1
small birds:	2
parrot fish:	1 (2 pre-maxillae + other head bones)

There are immediate chronological implications: at no excavated site in Tasmania have bone points or fish bones representing food debris been recovered from contexts less than 3,500 years old (Jones 1971b, pp. 503 ff., 541, 608, 619-620); Lourandos 1970 pp. 52-4).

Trench II Being thwarted by the roof fall from proceeding further with Trench I, we decided to excavate in the far recess of the cave. We excavated a single square metre here and managed to dig to a maximum depth of 1.75 m. There was evidence of human occupation to a depth of at least 1 m.

The top 20-25 cms consisted of interleaving hearths and lenses, rather like a micro-version of Rocky Cape South (Jones 1966, plate I). This area of excavation was rich in bone, and stone artefacts were more common in this stratigraphic unit than in Trench I. A total of 214 pieces of worked stone was recovered from the top 20 cms of deposit, and the majority of these were small quartz flakes. A preliminary sorting of bone from this square was carried out in the field.

(1) All minimum numbers of animals have been calculated by counting the most commonly occurring bone of any species, genus or family as identifiable, within any excavated trench or square; here, for instance, the numbers of pademelons were calculated by left pelvis and muttonbirds by right tarsometatarsus.

Minimum numbers of animals for this top stratigraphic unit are:

muttonbird:	5
small bird:	64
large bird:	2
rat:	46 (<i>Rattus</i> and <i>Mastacomys</i>)
pygmy possum:	1 (<i>Cercartetus</i> sp.)

Shell was common in this unit, forming small concentrations of midden deposit.

Below this top unit, a layer of compact white deposit occurred, which may represent something of a hiatus in occupation. No stone artefacts were found, and the density of charcoal and bone decreased sharply. A few isolated shells were present. Minimum numbers of animals represented here were:

muttonbird:	4
parrot:	2
raven/crow	2
small bird:	23
large bird:	2
rat:	8
marsupial mouse:	1 (<i>Antechinus</i> sp.)

Underlying the white layer 35 cms to 1.20 m below the surface, is a fine grey-brown deposit, crumbly in places and containing localised bands of white limy flecks. Five stone artefacts and one bone point were recovered from this layer. Charcoal was more prevalent here than in white layer, and bone was abundant. There was no shell. Minimum numbers of animals represented here were:

small bird:	27
large bird:	3
rat:	466
marsupial mouse:	42
pygmy possum:	14
pademelon/wallaby:	2
possum:	2 (<i>Pseudocheirus</i> , the ringtail possum)

native cat:	3 (<i>Dasyurus</i> sp.)
bandicoot:	10 (<i>Isoodon</i> , the brown bandicoot and <i>Perameles</i> , the barred bandicoot)
wombat:	1

The complete absence of shell from this layer would not seem to be due to poor preservation as the bone is in perfect condition.

A layer of paler, crumblier soil at the bottom of the excavation is almost totally devoid of anything but pieces of exfoliated slate. We did not reach bedrock, but the north wall of the cave started to slope steeply into the square here.

The faunal remains from Trench II present an interesting sequence, and can be summarised as follows:

	MINIMUM NUMBERS				
	mutton-birds	other birds	rats	(<i>Antechinus</i> + <i>Cercartetus</i>)	Larger marsupials
Top complex 0-20 cms	5	66	46	1	0
White layer 20-35 cms	4	29	8	1	0
Lower complex 35-120 cms	0	30	466	56	18
	9	125	520	58	18

The lowest stratigraphic unit shows the following significant contrasts with those above it:

1. The absence of muttonbirds in the lower unit and their presence in the top two units. A Chi^2 test shows this to be highly significant at better than the 0.1% level.
2. The decrease in the numbers of other birds in the lower unit as compared with those above it. A Chi^2 test shows this also to be significant at better than the 0.1% level.
3. The increase in rats in the lower level, also significant at better than the 0.1% level.
4. The increase in the small marsupials *Antechinus* and *Cercartetus*, also significant at better than the 0.1% level.
5. The presence of larger marsupials in the lower unit and their absence from those above it. This is significant at the 2% level.

A further point, not statistically tested, is the absence of shell from the lower unit and its presence in the upper two units.

While the fauna may not represent exclusively human dietary remains, it must at least be a reflection of the local environment. The most economical explanation of this sequence would seem to be that the lower unit is of Pleistocene age. During the Pleistocene, Hunter Island would have been part of the Tasmanian mainland, and the shoreline anything up to 75 km away. This would explain the absence of shellfish and the coastal muttonbird; possibly the decrease in other birds, should some of them prove to be seabirds; the presence of native cat, wombat, and *Perameles* - none of which are now present on Hunter Island, nor are they represented in more recent sites; and the comparative abundance of land fauna generally.

The lowest definite human artefacts from Trench II are a bone point (fig. 4) and two pieces of flaked quartz from between 80 to 100 cms below the surface. A charcoal sample from this level has been submitted for radiocarbon dating to the A.N.U. laboratory. The results indicate an age in excess of 18,000 years. (I)

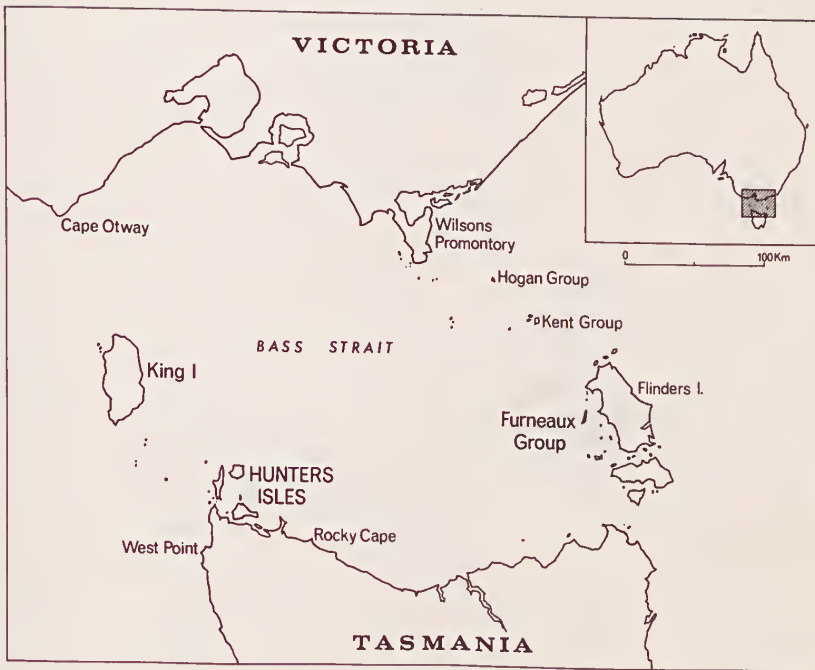
We may therefore postulate the human occupation of this cave beginning some time prior to 18,000 years ago. If the white layer does indeed represent a hiatus, it is possible that this was a period after the island had been severed from Tasmania; that it had no permanent inhabitants and was not visited by sea. We know however that visits by the Tasmanians must have commenced prior to 3,500 years ago, on the evidence of the bone points associated with shells in Trench I. There may well have been a period, say between 8,000 and 5,000 years ago, when the Tasmanians gradually perfected their methods of seacraft and navigation culminating in landfalls on Hunter Island by Tasmanian Cooks and Columbuses; who, like their latterday counterparts, opened up the islands to the exploiters who followed in their wake.

Further excavation of the Cave Bay Cave is imperative, with the prime target of excavating a large area in the vicinity of Trench I, to circumvent the problem of the boulders and try and excavate to a depth representing an equivalent antiquity as the lower part of Trench II. The presence of vegetable matter - leaves, twigs, decayed wood - to some depth in Trench II suggests that the application of flotation and other modern techniques would be rewarding.

2. The Muttonbird Midden (HIS/HUN/79) (fig. 2) (plates 3,4)

This site is in a small gully on the west coast, right in the large south-west muttonbird rookery. A large part of it is now eroded, no doubt the result of a combination of muttonbird burrowings and raging westerly winds.

(I) Henry Polach and John Head, personal communication:
Final: 18,550 \pm 600 years B.P. (ANU-1361)



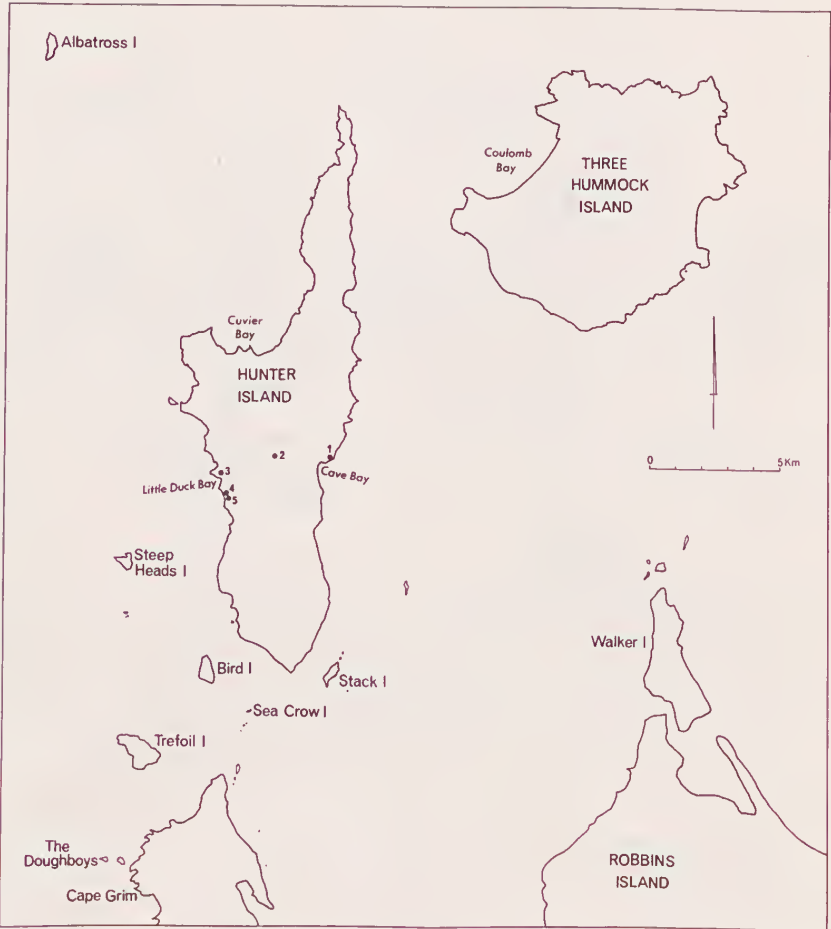


FIGURE 2. Archaeological sites: 1. Cave Bay Cave; 2. Stockyard Site; 3. Little Duck Bay Site; 4. Rookery Rock Shelter; 5. Muttonbird Midden.

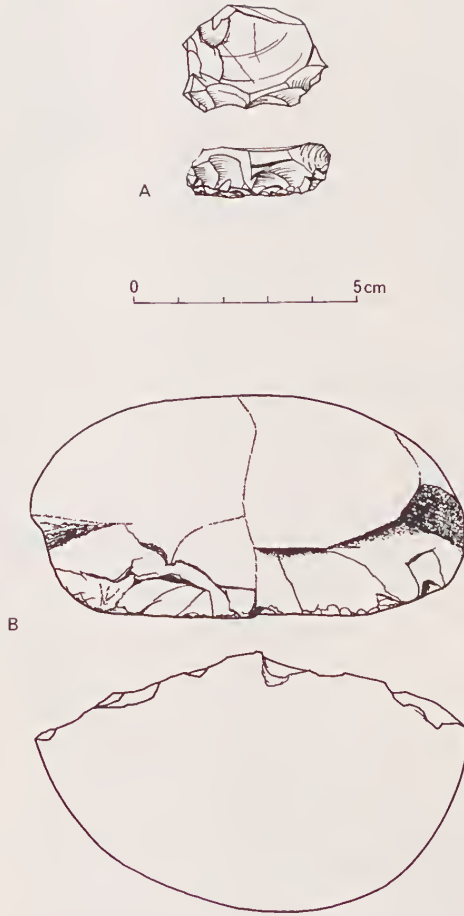


FIGURE 3. a. steep edge scraper, Trench I, Cave Bay Cave
b. pebble chopper, Trench I, Cave Bay Cave



A

0 5 cm



B

FIGURE 4. a. bone points, Trench I, Cave Bay Cave
b. bone points, Trench II, Cave Bay Cave



PLATE 1. Rock engravings, Three Hummock Island



PLATE 2. a. Cave Bay Cave, Hunter Island

b. Trench II, Cave Bay Cave. Foil reflectors were used, due to the lack of light in the back of the cave.



PLATE 3. a. Looking over the Muttonbird Midden, to the Rookery Rock shelter, Hunter Island.
b. Exposed face of Muttonbird Midden before excavation.



PLATE 4. Muttonbird midden after excavation, showing 'burrows'.

Originally the site must have covered an area of about 7,500 sq m but about 200 sq m is *in situ*. This stabilised portion presents an exposed face to the west, overlooking a small soak 50 m from the rocky shore. Compact shell midden overlying brown sand overlying yellow sand could be seen in this exposure. We excavated a trench 1 m x 5 m in area with the long axis at right angles to the exposed face, which we had first cleaned up. Maximum depth of the excavation was slightly over 1 m.

Relatively shallow muttonbird burrows, taking advantage of tussock grass as cover, occur here and there on the surface of the site. Our trench in fact sectioned one such burrow, which contained a muttonbird chick, the month being February. A pile of yellow sand overlying the surface of the midden was also sectioned by the trench, and seems to be upchuck from a deeper burrow on the edge of the stratified part of the site.

The top 20 to 40 cms of cultural deposit consists of compact shell midden. Stone artefacts were more common here than in the cave excavations, while bone, somewhat surprisingly, was a good deal sparser. About 500 artefacts were recovered, again mostly primary flakes of quartz and quartzite. Two pieces of fine-grained chert and two of spongolite were found, both materials being exotic to the island (cf. Sutherland 1972). These had fine secondary working on the margins. The remains of 3 muttonbirds, 1 penguin, 1 other large bird, 1 pademelon, 1 marsupial mouse (*Antechinus*), 1 brown bandicoot (*Isodon*) and pieces of cuttlefish were recovered. Charcoal was abundant in this layer.

Underlying this midden unit is a layer of brown sand between 40 and 45 cms thick. It contained some whole shells and fragments, bones, charcoal and stone artefacts throughout. About 150 artefacts were excavated, including one of chert. The bone represents 4 muttonbirds, 2 pademelons and 1 rat.

Beneath the brown sand is culturally sterile yellow sand. At the junction of the brown and yellow sand we encountered some interesting features. There seemed to be holes in the yellow sand filled with the brown deposit (plate 4). If the yellow sand represents the natural dune upon which occupation debris has built up, there seems no natural physical explanation for these holes. Their size, shape and spacing suggests that they are prehistoric muttonbird burrows. We have then an interesting chronological sequence of muttonbird rookery overlying human occupation site, overlying muttonbird rookery. This sequence, together with the muttonbird bones found throughout the occupation layers, would seem to suggest a strong association of man with muttonbirds. I have submitted charcoal from the bottom of the brown sand to the A.N.U. Radiocarbon Laboratory for dating. This date should be of some interest not only to archaeologists, but (if my interpretation of the 'burrows' is correct) to zoologists also.

3. The Rookery Rockshelter (HIS/HUN/80) (fig. 2., plate 3)

This small rock shelter is situated in the southern side of a hill which forms the northern boundary of the gully in which the muttonbird Midden is situated. It is a fissure in bedded Precambrian quartzite, and has a southern aspect, looking over the midden. The floor of the entrance is 15 m above sea level, and is about 30 m from the shore. The entrance is 3 m across and 3 m high, and the shelter is 5 m deep. The floor when I first saw it was covered with pigface (or a similar succulent). No sign of Aboriginal occupation was discernible but, by tearing away some of the succulent and scraping off some of the fine sandy grey soil beneath it, I was able to see some limpets and charcoal.

We excavated a square metre near the entrance to a depth of about 85 cms. At this depth we were obstructed by exfoliated rock fall - in this case, large lumps of quartzite. We then extended the cutting 50 cms to the west, which brought the trench up to the west wall of the shelter. Having excavated this half metre to a similar level as the initial cutting, we continued the excavation over the combined area 1 x 1.50 m to a maximum depth of 1.70 m.

The top 50 cms of deposit contained evidence of human occupation. Lenses of shell and charcoal were interspersed with lenses of fine grey sand containing charcoal and shell fragments. This stratigraphic unit contained at least 6 artefacts, of which 5 were primary flakes and one a spongolite flake with secondary working. This last was found about 35 cms below the surface. At the same depth was the pre-maxilla of a parrot fish, which could indicate an age of 3,500 years or more. Other animals represented in this unit were muttonbird, other bird, rat, pademelon, marsupial mouse (*Antechinus*), bandicoot (*Isoodon*) and cuttlefish.

From 50 cms to 1 m below the surface there was a sterile layer of yellow sand.

Below the sterile layer was 25 to 45 cms of black deposit which contained 3 pieces of quartz which are probably artefacts, a few rat bones and a certain amount of charcoal. Many large quartzite rocks were present at this depth. Rhys Jones, while visiting me in the field, suggested they are the result of periglacial weathering, which would have taken place in late Pleistocene times. The evidence for human occupation in this layer however is not definite.

Underneath this black layer was 15 to 25 cms of yellow to white sand, beneath which was the quartzite bedrock.

4. The Stockyard Site (HIS/HUN/3) (fig. 2)

This small midden is almost exactly in the middle of the island. It is about 2 km from the sea to both east and west. It is oval-shaped grassy mound, somewhat truncated by Pat Maguire's stockyard. Its apex is about 1 m above the surrounding flat marshy paddock, and is about 185 sq m in area.

I excavated one square metre in November and extended this by another metre in March. The maximum depth excavated was 75 cms and the maximum depth of cultural deposit 60 cms.

There is 5 cms of topsoil overlying 30 cms of shell midden. This midden layer is divisible into two units: 15 cms of very compact shell midden, overlying 15 cms of rather looser shell midden containing many more large, whole abalone shells than the compact midden. Beneath the midden is 30 cms of chocolate brown to dark orange sand containing fragments of shell and a few whole ones, charcoal, stone artefacts and animal bones. This rests on sterile yellow sand.

The stone artefacts consisted of about 200 primary flakes, a few showing signs of use. All are made of local quartz or quartzite.

Minimum numbers of animals represented in both squares are:

Compact midden,	fairy penguin:	1
	pelican:	1
	other bird:	3
	rat:	3 (<i>Rattus</i>)
	pademelon:	1
	potoroo:	3
	bandicoot:	1 (<i>Isoodon</i>)
	fur seal:	1
	muttonbird:	8
	pelican:	1
Looser midden,	other bird:	1
	water rat:	1 (<i>Hydromys</i>)
	pademelon:	5
	potoroo:	2
	bandicoot:	2 (<i>Isoodon</i>)
	blue tonge lizard:	3
	rat:	2 (<i>Rattus</i>)
	Brown sand,	

In the compact midden there was also a single fish vertebra. This does not of necessity represent food debris; it may, for instance, have been in the stomach of a pelican or seal.

The absence of muttonbird from the compact midden was striking. The method of calculating minimum numbers obscures this somewhat as only the most common bone of a species is counted. In this case it was the right carpometacarpal which was only found in the looser midden; but other muttonbird bones were present in the brown sand, while there were none at all in the compact midden. To demonstrate this statistically I carried out a Chi² test on the proportions of muttonbirds measured against all other species using the minimum numbers, and combining the lower two units to be tested against the compact midden. This showed that the absence of muttonbirds from the compact midden was significant at between the 1% and 2% levels. Is the fluctuation seasonal, or does it represent a change in cultural preferences over a longer period of time? Or was there a decrease in the muttonbird population?

5. The Little Duck Bay Site (HIS/HUN/2) (fig. 2)

This is a stabilised midden site on top of the hill forming the north arm of Little Duck Bay. I will not describe it in detail here, except to mention that it has two of the circular depressions which have been interpreted as hut sites when found on the west coast of Tasmania (Jones 1947; Jones 1971a p. 278; Lourandos 1968 pp. 42-3).

I excavated a small sounding 50 x 50 cms to a depth of 30 cms. This site appears to be rich in stone artefacts as at least 130 were recovered from this small cutting, including one spongolite flake. It is also rich in bone, especially the remains of fur seal. Penguin, rat, pademelon and bandicoot are also represented.

I intend to return to this site, for three reasons:

1. to obtain a large bone sample, especially of seal;
2. to obtain a good stone artefact sample;
3. to expose a large area in order to examine closely the structure of the depressions. The deposit does not appear to be particularly deep.

DISCUSSION

At least 18,000 years ago the ancestors of the Tasmanian Aborigines were sheltering in a large inland cave looking out over Bass Plain, little knowing that vast amounts of their territory would be inundated in the coming millenia, and the ridge in which their cave was situated would become first a peninsula, and finally a tiny offshore island. Can we arrive at a clearer picture of the period during which the rising sea severed Hunter Island from Tasmania and document the effects of this on man and beast?

After Hunter Hill became Hunter Island, the Tasmanians left evidence in the form of shell middens of their visit to Hunter, Three Hummock, Stack, Trefoil and Sea Crow Islands. They did not apparently visit Steep Heads Island, and, if they found this too difficult, I would be surprised if they ever went to Albatross Island, as Meston suggests (1936 p. 161). The fact that there is a Tasmanian name for Albatross (*Tangatema*: Meston, *ibid.*, from Ling Roth 1899 appendix p. xlv) may be simply because Albatross was clearly visible from some parts of Hunter. It would seem even more difficult to land on Albatross than Steep Heads (e.g. Flinders 1814 pp. clxxi-clxxii; Robinson 7.10.1832, p. 663; Ashworth & Le Souef 1895). Of course, there would always have been the foolhardy few who may have made it, but it seems unlikely that any regular trips would have been made to Steep Heads, Albatross Island or the Black Pyramid.

The reconnaissance of Hunter Island has raised a number of problems. The Muttonbird Midden supports Robinson's suggestions that people went to Hunter to exploit the mutton-bird which in itself further implies they went in summer. But did they never go in winter? And the Stockyard Site, and possibly the Little Duck Bay site, raises doubts about the muttonbird as a universal answer. What part was played by the seal? And, indeed, the rat, which, on the evidence of the Cave Bay Cave site, may have had a long history as the quarry of Tasmanian hunters in this region. In fact, all these sites show a somewhat surprisingly

heavy reliance on land fauna. What has happened to animals such as the brown bandicoot, which is represented in relatively recent sites, but is not now found in any of the Hunter Group? Why is the stone tool repertoire at most sites so poor? What proportions of exotic raw materials were imported, and for what purpose? What relationships, chronologically, seasonally and otherwise are there between the various sites?

I hope to be able to attack these problems by detailed analysis of material already recovered, and further fieldwork; in particular, a concerted attack on the Cave Bay Cave.

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